

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.

S. Roark

Re-run

#12

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/524,531A

TIME: 16:50:04

Input Set : A:\11422679.app

Output Set: N:\CRF3\08082001\I524531A.raw

3 <110> APPLICANT: IMHOF, BEAT ALBET
4 AURRAND-LIONS, MICHEL
6 <120> TITLE OF INVENTION: VASCULAR ADHESION MOLECULES AND MODULATION OF THEIR
7 FUNCTION
9 <130> FILE REFERENCE: 11422/0264679
11 <140> CURRENT APPLICATION NUMBER: 09/524,531A
C--> 12 <141> CURRENT FILING DATE: 2001-06-18
14 <150> PRIOR APPLICATION NUMBER: EP 99.200746.8
15 <151> PRIOR FILING DATE: 1999-03-11
17 <160> NUMBER OF SEQ ID NOS: 21
19 <170> SOFTWARE: PatentIn Ver. 2.1
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 20
23 <212> TYPE: DNA
24 <213> ORGANISM: Artificial Sequence
26 <220> FEATURE:
27 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
29 <220> FEATURE:
30 <221> NAME/KEY: modified_base
31 <222> LOCATION: (6)
32 <223> OTHER INFORMATION: a, t, c, g, other or unknown
34 <220> FEATURE:
35 <221> NAME/KEY: modified_base
36 <222> LOCATION: (10)..(12)
37 <223> OTHER INFORMATION: a, t, c, g, other or unknown
39 <400> SEQUENCE: 1
W--> 40 **tayagntgyn nngcytcyaa** 20
43 <210> SEQ ID NO: 2
44 <211> LENGTH: 20
45 <212> TYPE: DNA
46 <213> ORGANISM: Artificial Sequence
48 <220> FEATURE:
49 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
51 <220> FEATURE:
52 <221> NAME/KEY: modified_base
53 <222> LOCATION: (10)..(12)
54 <223> OTHER INFORMATION: a, t, c, g, other or unknown
56 <400> SEQUENCE: 2
W--> 57 **taycrgtgyn nngcytcyaa** 20
60 <210> SEQ ID NO: 3
61 <211> LENGTH: 20
62 <212> TYPE: DNA
63 <213> ORGANISM: Artificial Sequence
65 <220> FEATURE:
66 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
68 <220> FEATURE:
69 <221> NAME/KEY: modified_base

ENTERED

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/524,531A

TIME: 16:50:04

Input Set : A:\11422679.app

Output Set: N:\CRF3\08082001\I524531A.raw

```

70 <222> LOCATION: (10)..(12)
71 <223> OTHER INFORMATION: a, t, c, g, other or unknown
73 <400> SEQUENCE: 3
W--> 74 taytaytgyn nngcytcyaa 20
77 <210> SEQ ID NO: 4
78 <211> LENGTH: 18
79 <212> TYPE: DNA
80 <213> ORGANISM: Artificial Sequence
82 <220> FEATURE:
83 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
85 <400> SEQUENCE: 4
86 gaggtacttg catgtgct 18
89 <210> SEQ ID NO: 5
90 <211> LENGTH: 19
91 <212> TYPE: DNA
92 <213> ORGANISM: Artificial Sequence
94 <220> FEATURE:
95 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
97 <400> SEQUENCE: 5
98 cgacaggtgt cagataaca 19
101 <210> SEQ ID NO: 6
102 <211> LENGTH: 16
103 <212> TYPE: DNA
104 <213> ORGANISM: Artificial Sequence
106 <220> FEATURE:
107 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
109 <400> SEQUENCE: 6
110 caccctcctc actcgt 16
113 <210> SEQ ID NO: 7
114 <211> LENGTH: 18
115 <212> TYPE: DNA
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Description of Artificial Sequence: primer used
120 for detection of JAM-2 transcript
122 <400> SEQUENCE: 7
123 gactcacaga caagtgc 18
126 <210> SEQ ID NO: 8
127 <211> LENGTH: 16
128 <212> TYPE: DNA
129 <213> ORGANISM: Artificial Sequence
131 <220> FEATURE:
132 <223> OTHER INFORMATION: Description of Artificial Sequence: primer used
133 for detection JAM-2 transcript
135 <400> SEQUENCE: 8
136 caccctcctc actcgt 16
139 <210> SEQ ID NO: 9
140 <211> LENGTH: 25
141 <212> TYPE: DNA

```

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/524,531A

TIME: 16:50:04

Input Set : A:\11422679.app

Output Set: N:\CRF3\08082001\I524531A.raw

```

142 <213> ORGANISM: Artificial Sequence
144 <220> FEATURE:
145 <223> OTHER INFORMATION: Description of Artificial Sequence: primer for
146     Hprt cDNA
148 <400> SEQUENCE: 9
149 gttggataca ggccagactt tgttg                                     25
152 <210> SEQ ID NO: 10
153 <211> LENGTH: 23
154 <212> TYPE: DNA
155 <213> ORGANISM: Artificial Sequence
157 <220> FEATURE:
158 <223> OTHER INFORMATION: Description of Artificial Sequence: primer for
159     Hprt cDNA
161 <400> SEQUENCE: 10
162 gagggtaggc tggcctatag gct                                     23
165 <210> SEQ ID NO: 11
166 <211> LENGTH: 1943
167 <212> TYPE: DNA
168 <213> ORGANISM: Mus musculus
170 <400> SEQUENCE: 11
171 cagacattcc cctcgacatg gcgctgagcc ggcggctgcg acttcgactg tacgcgcggc 60
172 tgcttgactt ctctctgctg ctgctcttca ggggctgcat gatagaggca gtgaatctca 120
173 aatccagcaa ccgaaaccca gtggtacatg aatttgaaag tgtggaattg tcttgcatca 180
174 ttacggactc acagacaagt gaccctagga ttgaatggaa gaaaatccaa gatggccaaa 240
175 ccacatatgt gtattttgac aacaagattc aaggagacct ggcaggctgc acagatgtgt 300
176 ttggaaaaac ttccctgagg atctggaatg tgacacgacg ggattcagcc atctatcgct 360
177 gtgagggtcgt tgctctaaat gaccgaaaag aagttgatga gattaccatt gagttaattg 420
178 tgcaagtga ggcagtgacc cctgtctgca gaattccagc cgctgtacct gtaggcaaga 480
179 cggcaacact gcagtgccaa gagagcgagg gctatccccg gcctcactac agctggtacc 540
180 gcaatgatgt gccactgcct acagattcca gagccaatcc cagggtccag aattcctctt 600
181 tccatgtgaa ctcgagagac ggcactctgg ttttcaatgc tgtccacaag gacgactctg 660
182 ggcagtacta ctgcattgct tccaatgacg cagggtgcagc cagggtgtgag gggcaggaca 720
183 tggaagtcta tgatttgaac attgctggga ttattggggg agtccttggt gtccttattg 780
184 ttcttgctgt gattacgatg ggcactgtgt gtgcgtacag acgaggctgc ttcacagca 840
185 gtaaacaaga tggagaaaagc tataagagcc caggggaagca tgacggtgtt aactacatcc 900
186 ggacgagtga ggagggtgac ttcagacaca aatcgctcct tgttatctga cacctgtcgg 960
187 ctgggagagc acatgcaagt acctctgttg gaagctggtc acagggtgc tgtgagccca 1020
188 gagctcctga caaagccacc cgggcagaag ctttttggtt tggccaaagt tgatgactcc 1080
189 ttccctcctt ccttccctct taacaagcca caagaataaa aggaagcctc ctgaagatgg 1140
190 atgtagacac agattgttgc tagcctgacc tcattatggg gattaggggtg atcttcaagg 1200
191 cctttctggt ctccgttctc ccatgcaggg caatttggac tgtttttgcc ccaggctgtt 1260
192 tagctgccag gacaacactg gcagagagag gctgaggcgc tgggctgcag tagcagcagg 1320
193 caacagcctg atgcctgtga cagtgcacca ggaagggttt caggcagtg cttgctccct 1380
194 ggaccctgac ccaccgtgtt gcctctgttg attggccagt actgtcattt ccatcctgga 1440
195 gaatgtgttt ggaatcagca ttttataaaa aacccaaatc agaaagggtga aattgcttgc 1500
196 tgggaagagg gctctgaccc aggaaactct ccttcccaag agatgccagg agataggaga 1560
197 acctgtctgt cttaagtctg aaatggtact gaagtctcct tttctattgg tcttgcttat 1620
198 tttataaaaa tttaacattc taaattttgc tagagatgta ttttgattac tgaaaatttc 1680
199 tatataaact gtaaatatat tgccatacag tgtttcaaaa cgtatTTTTT tataatgagt 1740

```

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/524,531A

TIME: 16:50:04

Input Set : A:\11422679.app

Output Set: N:\CRF3\08082001\I524531A.raw

```

200 tcaacttaag gtagaaggct tgggctgcta gtgtttaatt ggaaaatacc agtagtaaag 1800
201 tcttttaagg agttttctta aggaggctgg ctgaatatcc ctttgttcaa aagaagtttt 1860
202 agcatttttc ataagaaaac ttactctgtc tgaccactgt tgcttaggaa accattaaag 1920
203 aattccaatc taaaaaaaaa aaa 1943

```

206 <210> SEQ ID NO: 12

207 <211> LENGTH: 1631

208 <212> TYPE: DNA

209 <213> ORGANISM: Mus musculus

211 <400> SEQUENCE: 12

```

212 mcramcagaa ttcggcacga ggggtctgggg gcgggggggcc gacctacggg ttctccctca 60
213 agagctaatac tctgccgcca ctgcgttagg accctgcgga caccgcgtcc cgcgtccacg 120
214 ccctcccctc aaccctcttc cacccttcaa aagaaggact gtccagacac cagctcctag 180
215 ggccagaaga cctgccccca cgacagtcgc tggagacacc ccagaccgga gagactgaca 240
216 tcgggacagg acccgcccct ctgcttccac ctctcaggga cctcctctgc tccgccgccg 300
217 ggcgaagtgc tgggagaccc agccgcctgt cgcgctcctg cagggggacc ctgagctagg 360
218 cagccagctg gcgcccgcgt agatggcgag gagccccaa ggcctcctga tgctgctgct 420
219 gctacactac ttgatcgctg ccctggacta tcataaggca aatgggtttt ctgcatcaaa 480
220 agaccaccgt caagaagtca cagtaataga gttccaagag gctattttgg cttgtaaaac 540
221 cccaaagaag actacctcct ccagactgga gtggaagaag gtgggacagg gggctcctt 600
222 ggtctactac caacaggctc tccaagggtg ctttaaagac cgtgctgaga tgatagattt 660
223 caatatacga atcaaaaatg ttacaagaag tgatgctgga gagtatcgt gtgaagtcag 720
224 cgctccgact gagcaaggcc agaacctgca ggaagataaa gtcagtctag aagtactagt 780
225 ggctcctgct gttcctgcct gtgaagtgcc cacttctgtt atgactggaa gtgtggtgga 840
226 gctacgatgc caggataaag aaggaaaccc agctccggag tacatctggt ttaaagatgg 900
227 cacaagtttg ctagggaatc caaaaggcgg cacacacac aacagctcgt acacaaatga 960
228 acacgaatct ggaattctgc aattcaacat gatttccaag atggacagtg gagagtatta 1020
229 ctgcgaagcc cggaactctg tcggacaccg cagggtgccct gggaagcgaa tgcaagtaga 1080
230 tgttctcaac ataagcggca tcatagcaac ggttggtggt gtggccttcg tgatttctgt 1140
231 atgtggcctt ggcacatgct atgctcagag gaaaggctac ttttcaaaag aaacttcctt 1200
232 ccagaagggc agtccctgcat ctaaagtac tacgatgggc gaaaatgatt tcaggcacac 1260
233 aaaatccttt ataatttaaa agaattccag ttttgggctg cccaaaacca gttgtccat 1320
234 gttattaaaa tattgtaaaa ctctgtgtct tacacttgca aagtgatgaa gaaatatgaa 1380
235 aggggagttc atcagaagtt ttatgatctc taactcacia gaaatatttt aagcaaaacg 1440
236 ttcttgccat cactaaatta caacctggca tcttggttg acctaaagga aatgtctggt 1500
237 aatattctgg tttttgaagg caaatgaatg tcagtttgga gttgactata tcacactgac 1560
238 tgtaaggcta atccaagaag caagaatata aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1620
239 aaaaaaattt c 1631

```

242 <210> SEQ ID NO: 13

243 <211> LENGTH: 310

244 <212> TYPE: PRT

245 <213> ORGANISM: Mus musculus

247 <400> SEQUENCE: 13

```

248 Met Ala Leu Ser Arg Arg Leu Arg Leu Arg Leu Tyr Ala Arg Leu Pro
249   1           5           10           15
251 His Phe Phe Leu Leu Leu Phe Arg Gly Cys Met Ile Glu Ala Val
252           20           25           30
254 Asn Leu Lys Ser Ser Asn Arg Asn Pro Val Val His Glu Phe Glu Ser
255           35           40           45
257 Val Glu Leu Ser Cys Ile Ile Thr His Ser Gln Thr Ser Asp Pro Arg

```

RAW SEQUENCE LISTING

DATE: 08/08/2001

PATENT APPLICATION: US/09/524,531A

TIME: 16:50:04

Input Set : A:\11422679.app

Output Set: N:\CRF3\08082001\I524531A.raw

```

258      50      55      60
260 Ile Glu Trp Lys Lys Ile Gln Asp Gly Gln Thr Thr Tyr Val Tyr Phe
261 65      70      75      80
263 Asp Asn Lys Ile Gln Gly Asp Leu Ala Gly Arg Thr Asp Val Phe Gly
264      85      90      95
266 Lys Thr Ser Leu Arg Ile Trp Asn Val Thr Arg Ser Asp Ser Ala Ile
267      100      105      110
269 Tyr Arg Cys Glu Val Val Ala Leu Asn Asp Arg Lys Glu Val Asp Glu
270      115      120      125
272 Ile Thr Ile Glu Leu Ile Val Gln Val Lys Pro Val Thr Pro Val Cys
273 130      135      140
275 Arg Ile Pro Ala Ala Val Pro Val Gly Lys Thr Ala Thr Leu Gln Cys
276 145      150      155      160
278 Gln Glu Ser Glu Gly Tyr Pro Arg Pro His Tyr Ser Trp Tyr Arg Asn
279      165      170      175
281 Asp Val Pro Leu Pro Thr Asp Ser Arg Ala Asn Pro Arg Phe Gln Asn
282      180      185      190
284 Ser Ser Phe His Val Asn Ser Glu Thr Gly Thr Leu Val Phe Asn Ala
285      195      200      205
287 Val His Lys Asp Asp Ser Gly Gln Tyr Tyr Cys Ile Ala Ser Asn Asp
288 210      215      220
290 Ala Gly Ala Ala Arg Cys Glu Gly Gln Asp Met Glu Val Tyr Asp Leu
291 225      230      235      240
293 Asn Ile Ala Gly Ile Ile Gly Gly Val Leu Val Val Leu Ile Val Leu
294      245      250      255
296 Ala Val Ile Thr Met Gly Ile Cys Cys Ala Tyr Arg Arg Gly Cys Phe
297      260      265      270
299 Ile Ser Ser Lys Gln Asp Gly Glu Ser Tyr Lys Ser Pro Gly Lys His
300      275      280      285
302 Asp Gly Val Asn Tyr Ile Arg Thr Ser Glu Glu Gly Asp Phe Arg His
303 290      295      300
305 Lys Ser Ser Phe Val Ile
306 305      310
310 <210> SEQ ID NO: 14
311 <211> LENGTH: 298
312 <212> TYPE: PRT
313 <213> ORGANISM: Mus musculus
315 <400> SEQUENCE: 14
316 Met Ala Arg Ser Pro Gln Gly Leu Leu Met Leu Leu Leu Leu His Tyr
317 1      5      10      15
319 Leu Ile Val Ala Leu Asp Tyr His Lys Ala Asn Gly Phe Ser Ala Ser
320      20      25      30
322 Lys Asp His Arg Gln Glu Val Thr Val Ile Glu Phe Gln Glu Ala Ile
323      35      40      45
325 Leu Ala Cys Lys Thr Pro Lys Lys Thr Thr Ser Ser Arg Leu Glu Trp
326 50      55      60
328 Lys Lys Val Gly Gln Gly Val Ser Leu Val Tyr Tyr Gln Gln Ala Leu
329 65      70      75      80
331 Gln Gly Asp Phe Lys Asp Arg Ala Glu Met Ile Asp Phe Asn Ile Arg

```

VERIFICATION SUMMARY

DATE: 08/08/2001

PATENT APPLICATION: US/09/524,531A

TIME: 16:50:05

Input Set : A:\11422679.app

Output Set: N:\CRF3\08082001\I524531A.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:40 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1

L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2

L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18

L:559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19

L:579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20

STATISTICS SUMMARY

PATENT APPLICATION: US/09/524,531A

DATE: 08/08/2001

TIME: 16:50:05

Input Set : A:\11422679.app

Output Set: N:\CRF3\08082001\I524531A.raw

Application Serial Number: US/09/524,531A

Alpha or Numeric: Numeric

Application Class:

Application File Date: 06-18-2001

Art Unit:

Software Application: PatentIn

Total Number of Sequences: 21

Total Nucleotides: 5065

Total Amino Acids: 1448

Number of Errors: 0

Number of Warnings: 6

Number of Corrections: 1

MESSAGE SUMMARY

271 C: 1 (Current Filing Date differs)

341 W: 6 ((46) "n" or "Xaa" used)